



The CLIL effect

Final Master's Project

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Abstract:

The influence of CLIL programmes has been a popular subject for studies. Proof of the usefulness of CLIL programmes to improve the learning of the foreign language as been accepted. In regards to the learning of the content the few researches that exist mostly show no significant difference between CLIL and non-CLIL learners.

This cross-sectional quantitative pre-study conducted on 102 intermediate students of EFL will try to shed some light on the fact that learning a subject in a foreign language may affect the learning of another foreign language for that area of knowledge. All the students were 14-15 years old and are taught at school three content subjects in English, two content subjects in French, and two content subjects in Spanish. The results show the spelling of the foreign language is slightly affected when the subject had been mainly learnt in a different language. Further studies shall be needed.

Key words: CLIL, EFL, writing, FFL (French as a Foreign Language)

Resumen:

La influencia de los programas AICLE ha sido un tema popular investigación. Hay evidencia de la utilidad de estos programas para mejorar la enseñanza de la lengua extranjera. Con respecto al aprendizaje del contenido los pocos estudios que existen muestran una diferencia no significativa entre los estudiantes de los programas AICLE y otros.

Este pre-estudio transversal cuantitativo llevado a cabo en 102 estudiantes de ILE nivel intermedio trata de mostrar si aprender una asignatura en una lengua extranjera puede afectar el aprendizaje de otra lengua extranjera para esa área de conocimiento. Todos los estudiantes tenían 14-15 años y se les enseñaban tres asignaturas de contenido en inglés, dos asignaturas de contenido en francés y dos asignaturas de contenido en español. Los resultados muestran que la ortografía de la lengua extranjera se ve ligeramente afectada cuando la asignatura ha sido aprendida en una lengua diferente. Estudios adicionales serían necesarios.

Palabras clave: AICLE, ILE (inglés), escritura, FLE (francés)

Introduction

Thanks to the globalization of the world, CLIL programmes are nowadays gaining popularity, and because of this they had been the subject for several researches during the last years. As Marsh, D said in 1997 “CLIL is about using different languages in a manner which is directly linked to working in an increasingly international world.” “CLIL allows the student to learn to use language as a tool in a natural and innovative way.”

CLIL programmes focus in the learning of both content and a foreign language, and the studies that have been carried up until now also focus on those two main points.

It is accepted right now that there is proof of the usefulness of CLIL programmes to improve the learning of the foreign language. Georgiou, S. In her work of 2012 mentioned that: “There is increasing evidence that CLIL programmes are more successful in developing foreign language competence than traditional language classes”. And Dalton-Puffer in 2011 presented a range of research studies that had already confirmed the positive effect CLIL programmes had while learning the foreign language.

In regards to the learning of the content we must admit there aren't as many researches, but the few that exist mostly show no significant difference between CLIL and non-CLIL learners.

This project will verse about the influence of CLIL programmes in the learning of English, but unlike other studies I won't focus only in the positive influence a content subject taught in English has, I also want to see if teaching a content subject in a different foreign language may affect the learning of English for that area of knowledge; for example, if a student learns 'History' in French will that make it easier for him/her to talk about History in English? Or will that hindrance the fluency and correction?

Hypothesis

As I have stated in the introduction, I want to see if teaching a content subject in a foreign language may affect the learning of another language for that same area of knowledge.

This is an area of research in which I haven't been able to find any papers on the topic, so there are some hypotheses I won't be able to theorize about based in the literature review. Because of this I will organize my research question in two groups:

- 1 - How English learning is affected when some content subject is taught through English:
 - a) Teaching a subject in English will improve the English lexical availability of students.
 - b) Teaching a subject in English will improve the spelling of English words for that area of knowledge.
- 2 - How English learning is affected when some content subject is taught through another language:
 - a) Teaching a subject in another foreign language may hindrance the English lexical availability of students for that area of knowledge.
 - b) Teaching a subject in another foreign language may hindrance the spelling of English words for that area of knowledge

The first group of hypotheses is based on previous researches, as I mentioned before the usefulness of CLIL programmes has already been proved in that account.

On the other hand, the second group of research question are not based on previous studies. It is true that some people believe that the more language you learn the better learning strategies you have, but I think it is possible that learning a content subject in one foreign language will have a negative impact when learning that same area of knowledge in a different foreign language.

Methodology

I have carried out this cross-sectional pre-experiment with 102 students of an intermediate level of English (B1). Their native language was Spanish. All of them were 14-15 years old and all of them were taught the same classes in the same languages. Two content subjects were taught in French, two content subjects were taught in Spanish and three content subjects are taught in English.

The only difference between students was the number of hours dedicated to the languages subjects. German as a foreign language was an optional subject at school; those students who didn't take German class had five hours of English per week and five hours of French per week. Those students who were learning German sacrificed one hour of French and one hour of English per week in order to attend German class.

In order to collect the data I prepared a 'lexical availability test' similar to the ones used by López Gonzalez (2008), Pérez Serrano (2009), Frey Pereyra (2007) and Victory (1971). The lexical availability test consist in giving them 2 minutes to write down in English as many words as they can think that are related to an specific topic.

I created a test consisting of 6 topics:

- 2 of the subjects were taught in French:

HISTORY & GEOGRAPHY

01.		26.	
02.		27.	
03.		28.	
04.		29.	
05.		30.	
06.		31.	
07.		32.	
08.		33.	
09.		34.	
10.		35.	
11.		36.	
12.		37.	
13.		38.	
14.		39.	
15.		40.	
16.		41.	
17.		42.	
18.		43.	
19.		44.	
20.		45.	
21.		46.	
22.		47.	
23.		48.	
24.		49.	
25.		50.	

MUSIC

01.		26.	
02.		27.	
03.		28.	
04.		29.	
05.		30.	
06.		31.	
07.		32.	
08.		33.	
09.		34.	
10.		35.	
11.		36.	
12.		37.	
13.		38.	
14.		39.	
15.		40.	
16.		41.	
17.		42.	
18.		43.	
19.		44.	
20.		45.	
21.		46.	
22.		47.	
23.		48.	
24.		49.	
25.		50.	

- 2 of the subjects were taught in Spanish:

SCIENCE

01.		26.	
02.		27.	
03.		28.	
04.		29.	
05.		30.	
06.		31.	
07.		32.	
08.		33.	
09.		34.	
10.		35.	
11.		36.	
12.		37.	
13.		38.	
14.		39.	
15.		40.	
16.		41.	
17.		42.	
18.		43.	
19.		44.	
20.		45.	
21.		46.	
22.		47.	
23.		48.	
24.		49.	
25.		50.	

MATHEMATICS

01.		26.	
02.		27.	
03.		28.	
04.		29.	
05.		30.	
06.		31.	
07.		32.	
08.		33.	
09.		34.	
10.		35.	
11.		36.	
12.		37.	
13.		38.	
14.		39.	
15.		40.	
16.		41.	
17.		42.	
18.		43.	
19.		44.	
20.		45.	
21.		46.	
22.		47.	
23.		48.	
24.		49.	
25.		50.	

- 2 of the subjects were taught in English:

COMPUTERS & TECHNOLOGY

01.		26.	
02.		27.	
03.		28.	
04.		29.	
05.		30.	
06.		31.	
07.		32.	
08.		33.	
09.		34.	
10.		35.	
11.		36.	
12.		37.	
13.		38.	
14.		39.	
15.		40.	
16.		41.	
17.		42.	
18.		43.	
19.		44.	
20.		45.	
21.		46.	
22.		47.	
23.		48.	
24.		49.	
25.		50.	

PHYSICAL EDUCATION & SPORTS

01.		26.	
02.		27.	
03.		28.	
04.		29.	
05.		30.	
06.		31.	
07.		32.	
08.		33.	
09.		34.	
10.		35.	
11.		36.	
12.		37.	
13.		38.	
14.		39.	
15.		40.	
16.		41.	
17.		42.	
18.		43.	
19.		44.	
20.		45.	
21.		46.	
22.		47.	
23.		48.	
24.		49.	
25.		50.	

Before the test the students had to fill a form stating their age, sex and if they studied German or not. Every student had 2 minutes for each subject; they all were warned to write in English and that personal names will not be taken into account unless they had been the focus of some class.

As I wanted to take into account if each word was truly related to the topic, once I collected all the tests I looked them one by one to see what they had written, this way I was able to ask them if I didn't understand why they have written down something; I did this in order to know for sure if a word that didn't make sense to me was caused by misspelling or for other reasons.

When I was sure I understood every word they have written down I proceeded to analyze the data. Following a set of rules (stated in the Annexe I) I created an Excel chart where I noted down how many words related to each topic each student wrote down, and how many of those words were correctly spelled. I took into account the student sex and if they studied German.

Nº student*	GERMAN	Male / Fem	HISTORY		TECHNOLOGY		SCIENCE		MUSIC		MATHS		SPORTS	
			related words	correct words	related words	correct words	related words	correct words	related words	correct words	related words	correct words	related words	correct words
1	N	F												
2	N	M												
...														

For each student I added up the columns related to subjects taught in the same language and then I also calculated the total number of words for all students for each column.

GERMAN	Male / Fem	Nº student	Technology + Sports related words	Technology + Sports correct words	Science + Maths related words	Science + Maths correct words	History + Music related words	History + Music correct words
N	F	1						
N	M	2						
		...						
		All						
		Females						
		Males						
		GERMAN Yes						
		GERMAN No						

Results

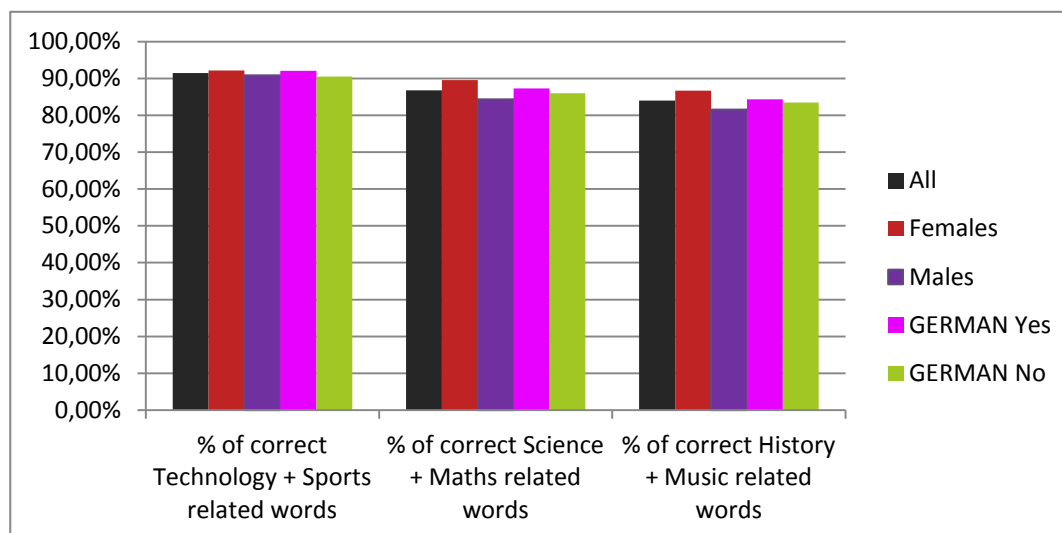
In this first chart I present the added number of words written down by all students and the total number of words taking into account the different possible groups of students:

	Number of students	Subjects taught in English		Subjects taught in Spanish		Subjects taught in French	
		Technology + Sports related words	Technology + Sports correct words	Science + Maths related words	Science + Maths correct words	History + Music related words	History + Music correct words
All	102	2996	2739	3908	3391	2645	2221
Females	51	1430	1317	1821	1613	1250	1083
Males	51	1566	1422	2087	1760	1395	1138
GERMAN Yes	61	1833	1687	2457	2144	1593	1343
GERMAN No	41	1163	1052	1451	1247	1052	878

This second chart I created it with the percentage of correctly spelled words:

	Subjects taught in English	Subjects taught in Spanish	Subjects taught in French
	% of correct Technology + Sports related words	% of correct Science + Maths related words	% of correct History + Music related words
All	91,42%	86,77%	83,95%
Females	92,10%	89,57%	86,64%
Males	90,80%	84,33%	81,58%
GERMAN Yes	92,03%	87,26%	84,31%
GERMAN No	90,46%	85,94%	83,46%

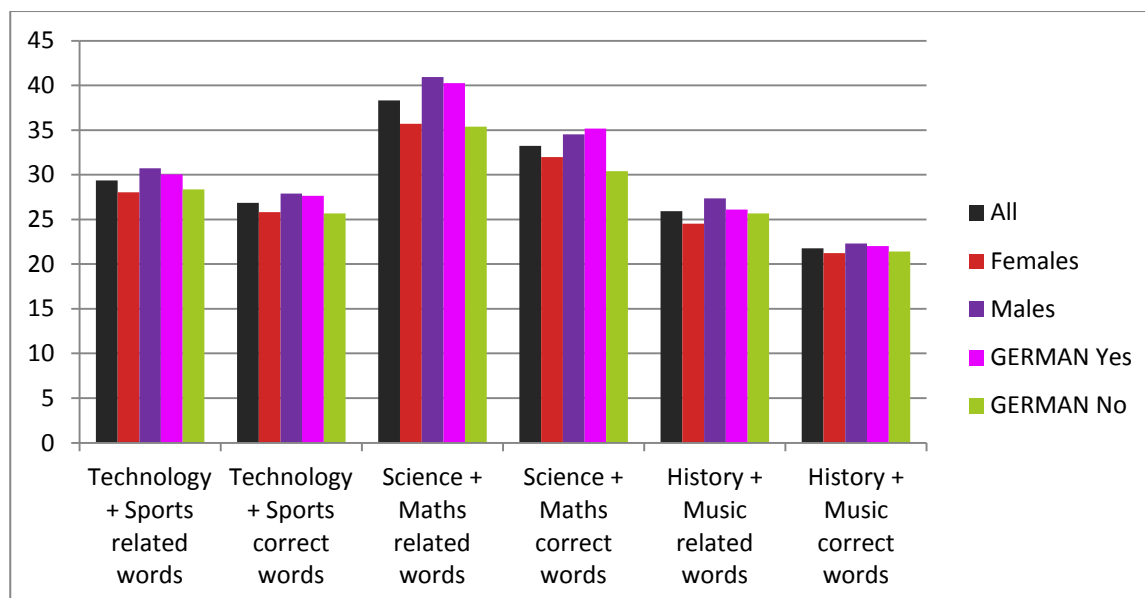
I represented these percentages in the next graphic:



Finally I decided to calculate what will be the average number of words written by each group of students. To do this I took the first chart and divided the total number of words of each group by the number of students that were in it. This is the resulting chart:

	Technology + Sports related words	Technology + Sports correct words	Science + Maths related words	Science + Maths correct words	History + Music related words	History + Music correct words
All	29,37	26,85	38,31	33,24	25,93	21,77
Females	28,04	25,82	35,71	31,98	24,51	21,24
Males	30,71	27,88	40,92	34,51	27,35	22,31
GERMAN Yes	30,05	27,66	40,27	35,15	26,11	22,02
GERMAN No	28,37	25,66	35,39	30,41	25,66	21,41

I represented these results in the next graphic:



Discussion and conclusion

As aforementioned, I wanted to confirm that teaching a content subject in a foreign language will improve said foreign language, but I also wanted to see if teaching a content subject in a foreign language may affect the learning of another language for that same area of knowledge.

I am going to try to summarize the findings shown by the charts and graphics presented in the results:

- The number of English words written in relation to subjects taught in the students mother tongue is superior to the number of words related to subjects taught in English.
- And the number of English words written in relation to subjects taught in English is superior to the number of words related to subjects taught in French.
- Spelling is better for the subjects taught in English (91,42%) than for the subjects taught in Spanish (86,77%)
- Words related to subjects taught in French have a higher percentage of mistakes. (83,95%)
- Males write more words than Females for every subject.
- Males make more spelling mistakes than Females in relation to every subject.
- Students who study German write more words for every subject.
- Students who study German have a higher percentage of correction in spelling in relation to every.

Taking into account these findings I will answer my research questions, they were the following:

- Teaching a subject in English will improve the English lexical availability of students.
 - According to my findings students write more word in English for the subject taught in their mother tongue, which means this hypothesis hasn't been proved.
- Teaching a subject in English will improve the spelling of English words for that area of knowledge.
 - According to my findings this is true; words related to subjects taught in English have the highest percentage of words spelled correctly.

- Teaching a subject in another foreign language may hindrance the English lexical availability of students for that area of knowledge.
 - This may be true as the number of English words related to subjects mainly taught in French is the lowest.
- Teaching a subject in another foreign language may hindrance the spelling of English words for that area of knowledge
 - This seems to be correct; the percentage of correctly English written words is the lowest for the subjects mainly taught in French.

As we can see the only hypothesis that has been disproved has been the one that according to previous studies had already been confirmed as true. This may have been influenced by the topics themselves. The subjects taught in Spanish (Science and Mathematics) are related to words taught at the base of every language, what I mean is that for science most students wrote down names of animals and body parts, while in Mathematics almost all students listed the numbers (one, two, three...)

In reference to the fact that males write more words than females but make more mistakes, I think a possible explanation will be that males gave more importance to the number of words written, while females paid more attention to the spelling of the words.

Lastly I will try to find an explanation as to why students who learn a third foreign language write down more English words and with a higher percentage of correction. Maybe it is because they have more learning strategies, but been truthful it may also be because only students with general good marks are allowed to take German at school.

There had been some limitations to this study, as I mentioned before this has actually been a cross-sectional pre-study. I only did this test to a group of students that all possessed the same characteristics in education; I can't compare this results with a control group.

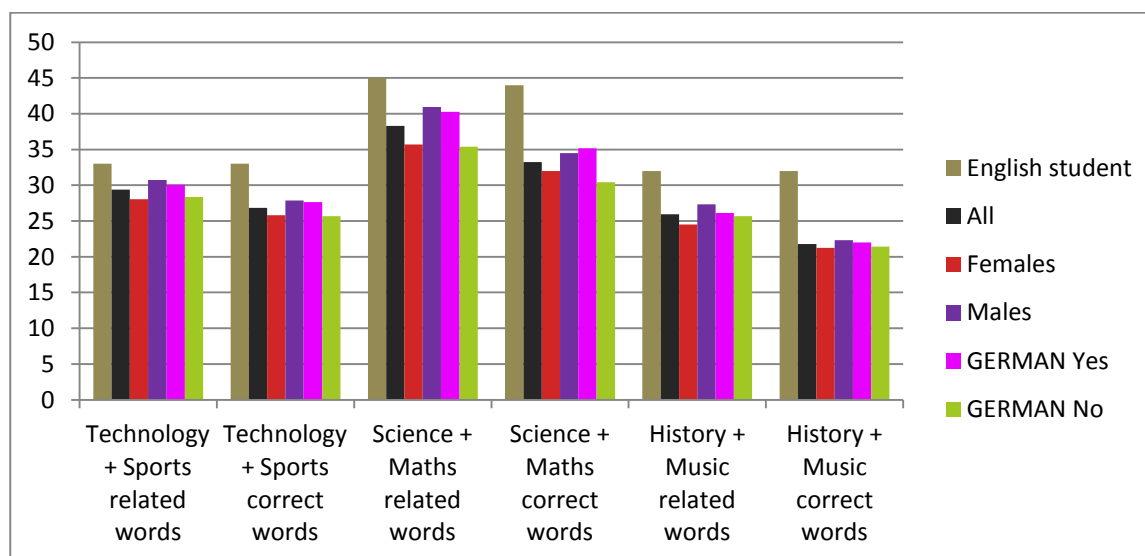
It would be interesting to do this kind of pre-study with a similar group but whose native language will be different. It may also be interesting to test the number of word written in the students' mother tongue and their correction.

Related to this last suggestion for future research I had been able to gather some information. While I was doing this study with the Spanish students, there was an exchange student who was a native English speaker. This student decided to take part in the test knowing I will exclude her results from the general data, but thanks to her interest I will present you with a glimpse of how a native speaker will fare in this test.

I have taken the chart with the average number of words written by each group of students, and I have added a file in which I noted down her results. Here is the chart:

	Technology + Sports related words	Technology + Sports correct words	Science + Maths related words	Science + Maths correct words	History + Music related words	History + Music correct words
English student	33	33	45	44	32	32
All	29,37	26,85	38,31	33,24	25,93	21,77
Females	28,04	25,82	35,71	31,98	24,51	21,24
Males	30,71	27,88	40,92	34,51	27,35	22,31
GERMAN Yes	30,05	27,66	40,27	35,15	26,11	22,02
GERMAN No	28,37	25,66	35,39	30,41	25,66	21,41

And here is a graphic including the average number of words written by each group of students including this English student.



As we can see this native speaker writes down a higher number of words than the average for each subject. And most important it shows that as the rest of the students she has also written down a significantly higher amount of words for the subjects of Science and Maths, which seems to proof the influence of the topic in the number of words written.

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Annexe

All words related to the topic will be accepted, except:

- Names of Spanish cities. They will only count as one for each student. They knew it was an English test, it is not acceptable to write down: Bilbao, Madrid, Barcelona, Pamplona, Navas de Tolosa, Zaragoza, Huelva, Segovia, Mérida, Guadalajara, Sevilla, Córdoba, Valladolid, Salamanca, Tudela...
- Specific labels names not mentioned in class.
- Sport brand names.
- Names of singers and bands of music.
- Names of teams or athletes.
- If they have written down several sports I will only accept one player and one ball, it is unacceptable to write down: tennis player, football, player, basketball player... or tennis ball, soccer ball...

Spelling:

- Words will be considered correctly spelled when they are written with either American or British spelling.
- Names of people who have a 'translation' into English will be expected to be written in English. For example: ~~Cristobal~~ Colón /Christopher Columbus.
- Acronyms will be considered correct as far as they are the English acronyms.
- The musical notes: do, re, mi, fa, sol, la, si. Will be considered to be misspelled.
- Verbs will be considered correct either in the infinitive or the present participle.